CLAIMS

1. Network equipment for connection to a local network, said network comprising at least one software server, said equipment comprising a persistent memory (4) for storing software (5, 6, 7), characterized in that it comprises :

- communication means (8, 9) for connection to said network,
- means (10) for monitoring the start up of the equipment in order to detect a software failure,
- means (10) for generating a software failure signal in response to the detection of a failure by the monitoring means, and for automatically sending a notification of the failure on the network, wherein said notification is broadcast on the network for reception by said at least one software server.

2. Equipment according to claim 1, characterized in that the failure signal comprises information specifying at least one of the following :

- the nature of the failure,
- an identification of replacement software to be downloaded,
- an identification of the version of the software currently stored in the persistent memory.

3. Equipment according to any one of the preceding claims, characterized in that the software comprises at least one of the following :

- a boot program (6),
- configuration data (5),
- firmware (7).

4. Equipment according to claim 3, characterized in that, the software comprising firmware, the means (10) for monitoring the start up comprise:

- means (10) for checking (36) the validity of a current firmware verification pattern and,
- means (10) for generating (39) a specific software start up failure signal (37) when this verification pattern is not valid.

5. Equipment according to claim 1, characterized in that the means (10) for monitoring the start up comprise:

- means for calculating (33) the checksum of the current software,
- means for comparing (33) this calculated checksum to a previously stored check sum,

- means for generating (39) the software start up failure signal (34) when this calculated check sum is not identical to the stored one.

6. Equipment according to claim 3, characterized in that, said memory comprising firmware, the means (10) for monitoring the start up comprise:

- means for checking (43) the presence of the firmware in the memory means (4),

- means for rebooting (30) the stand alone equipment when no firmware is stored in the memory (4),

- means for generating (39) a software start up failure signal (44) when no firmware is stored in the memory means (4).

7. Equipment according to any one of the preceding claims, characterized in that the means (10) for monitoring the start up comprise:

- means for checking (40) the downloading of replacement software in the memory (4),

- means for rebooting (30) the equipment and means for generating a software start up failure signal (42) when a problem is detected during this downloading.

8. Equipment according to claims 3 or 4 and 7, characterized in that the software comprises firmware, and the equipment comprises :

- means for writing (41) a replacement firmware verification pattern (17) corresponding to the replacement firmware downloaded in the memory (4), when a replacement firmware (7) is properly recorded in this memory.

9. Equipment according to any one of the preceding claims, characterized in that the means (10) for monitoring the start up comprise:

- means for checking (46) the process of loading of a software,

- means for rebooting (30) the stand alone equipment and means for generating a software start up failure signal (48) when a problem appears during this loading.

10. Equipment according to any one of the preceding claims, characterized in that the means (10) for monitoring the software start up comprises:

- a timer to determine a start up time limit,

- means for launching the software start up (45), said software being adapted to a start up end indication to the monitoring means after completion of the start up;

- means for generating a software start up failure signal (48), if the software start up is not completed before the end of the time limit.

11. Equipment according to any one of the preceding claims, characterized in that it further comprises user actionable means (11) connected to the monitoring means (10) for enabling a user to manually request the download of replacement software.

12. Equipment according to any one of the preceding claims, characterized in that it further comprises an alarm (12) connected to the monitoring means (10) for notifying a start up failure to the user.

13. Equipment according to any one of the preceding claims, characterized in that the means (10) for generating a software start up failure signal comprise:

- means for checking (38) the setting of a failure flag, and

- means for generating (39) the software failure signal and for transmitting it on the network in response to the detection of a set failure flag.

14. Equipment according to any of the preceding claims combined with claim 2, wherein the indication of the nature of the failure comprises a series of status flags.

15. Equipment according to claim 14, wherein said notification further comprises an identification of the version of the software currently stored in the persistent memory.

16. Method for monitoring the software start up of a network equipment, the equipment comprising a persistent memory (4) for storing software (5, 6, 7) and communication means (8, 9) for connection to a network (2) comprising at least one software server (3), this process comprising the steps of:

- monitoring (32, 33, 36, 38, 40, 43, 46) the software start up of the equipment in order to detect a software start up failure,

- generating a software start up failure signal (34, 35, 37, 42, 44, 48) in response to the detection of a start up software failure,

- automatically broadcasting (39) the software failure signal on the network (2) for reception by said at least one software server.

17. Method according to claim 16, wherein the software failure signal comprises a request to the at least one software server (39) for the download of replacement software in the memory (4) .

18. Method according to claim 16, wherein the software failure signal comprises an identification of the failure for analysis by the at least one server.